



Brief note

On

**“Interactive Meet with Vendors /Agencies
involved in Real-Time Water Quality Monitoring”**

For

Water Quality Monitoring System for River Ganga

Under

***The Institutional Development Component of the World Bank
Assisted National Ganga River Basin Project***

The Ganga Basin

The Ganga basin covers nearly one-fourth (26.3 per cent) of the country's total geographical area, and is the largest river basin with a catchment area of 760,407 km². In India, the basin covers the whole of Uttarakhand, Uttar Pradesh, Bihar and the Union Territory of Delhi and parts of Punjab, Haryana, Himachal Pradesh, Rajasthan, Madhya Pradesh and West Bengal.

Ganga, rising in the northern most part of Uttarakhand (Gomukh), flows through Uttar Pradesh, Bihar and West Bengal and finally falls into the Bay of Bengal (Sagardweep).

After traversing a length of 1450 km in Uttarakhand and Uttar Pradesh and 110 km in the boundary between Uttar Pradesh and Bihar the river then enters Bihar and flows 405 km through the middle of the State. A length of 40km is in Jharkhand. The length of the river measured along the Bhagirathi and the Hugli during its course in West Bengal is about 520 km. The total length of Ganga is approximately 2525 km. The Ganga Basin has an area of approx. 8,61,404 km². The Ganga River has a large number of tributaries, some of which are of Himalayan origin having considerable water wealth.



Sources: State boundaries (MInfo Map, 2009), major lakes and rivers (RWDBII, CIA, 2006, and VMAPO, NIMA, 1997), populated places (GRUMP, CIESIN, Columbia University, IFPRI, the World Bank, and CIAT, 2004).

Figure: The Ganges Basin

Proposed Water Quality Monitoring Network

The project "Water Quality Monitoring System for River Ganga" is a part of the World Bank's long-term support for the Government of India's Mission Clean Ganga that seeks to rejuvenate India's iconic river under the Institutional development component.

This Project focuses on the main stem of the Ganga River in the states of Uttarakhand, Uttar Pradesh, Bihar, Jharkhand and West Bengal with the following objectives;

- i) To assess nature and extent of pollution.
- ii) To understand the environmental fate of different pollutants.
- iii) To evaluate effectiveness of pollution control measures in place.
- iv) To evaluate water quality trend.
- v) To assess the fitness of water for different uses

It is proposed to set up real time water quality monitoring stations, at important locations on River Ganga to provide a state-of-the-art, real-time picture of its water quality;

- On Main Stem :
 - Upstream and downstream of major urban areas
 - Downstream of Point sources from Industrial & Domestic discharge
- Major tributaries : Upstream of the confluence with the Ganga
- In major drains
- Upstream of intakes for drinking water treatment plants
- At important mass bathing place
- Downstream of wastewater treatment plants,

The network is proposed to be established on data purchase concept where agency(ies) or service provider will be responsible for installation, commissioning, operation & maintenance of the real time monitoring network and data transmission to CPCB on real time basis. The cost of data so received by CPCB will be paid after validation and quality assurance. The agency(ies) will also be responsible for maintaining the software /hardware system including the data receiving stations, data base, web server, and other supporting and associated equipment. The service provider will own and operate the entire system described above. CPCB will be the user of the system and shall own all the data, including the preliminary data set as well as the validated quality controlled data and therefore the data so generated will be the property of CPCB.